



Robert Greene Sterne  
Edward J. Kessler  
Jorge A. Goldstein  
David K.S. Cornwell  
Robert W. Esmond  
Tracy-Gene G. Durkin  
Michele A. Cimbala  
Michael B. Ray  
Robert E. Sokohl  
Eric K. Steffe  
Michael Q. Lee  
Steven R. Ludwig  
John M. Covert  
Linda E. Alcorn  
Robert C. Millonig  
Lawrence B. Bugaisky  
Donald J. Featherstone  
Michael V. Messinger

Judith U. Kim  
Timothy J. Shea, Jr.  
Patrick E. Garrett  
Heidi L. Kraus  
Edward W. Yee  
Albert L. Ferro\*  
Donald R. Banowitz  
Peter A. Jackman  
Teresa U. Medler  
Jeffrey S. Weaver  
Kendrick P. Patterson  
Vincent L. Capuano  
Eldora Ellison Floyd  
Thomas C. Fiala  
Brian J. Del Buono  
Virgil Lee Beaton  
Kimberly N. Reddick  
Theodore A. Wood

Elizabeth J. Haanes  
Joseph S. Ostroff  
Frank R. Cottingham  
Christine M. Uhliar  
Rae Lynn Prengaman  
Jane Shershenovich\*  
Lawrence J. Carroll\*  
George S. Bardmesser  
Daniel A. Klein\*  
Jason D. Eisenberg  
Michael D. Specht  
Andrea J. Kamage  
Tracy L. Muller\*  
LuAnne M. DeSantis  
John J. Figueroa  
Ann E. Summerfield  
Tiera S. Coston\*  
Aric W. Ledford\*

Michael D. Specht  
Jessica L. Parezo  
Timothy A. Doyle\*  
Cynthia M. Bouchez  
Nicole D. Dretar\*  
Ted J. Ebersole  
  
**Registered Patent Agents\***  
Karen R. Markowicz  
Nancy J. Leith  
Helene C. Carlson  
Gaby L. Longsworth  
Matthew J. Dowd  
Aaron L. Schwartz  
Mary B. Tung  
Katrina Y. Pei Quach  
Bryan L. Skelton  
Robert A. Schwartzman

Teresa A. Colella  
Jeffrey S. Lundgren  
Victoria S. Rutherford  
Eric D. Hayes  
Michelle K. Holoubek  
Robert H. DeSelms  
Simon J. Elliott  
Julie A. Heider  
Mita Mukerjee  
Scott M. Woodhouse  
  
**Of Counsel**  
Kenneth C. Bass III  
Evan R. Smith  
Marvin C. Guthrie  
\*Admitted only in Maryland  
\*Admitted only in Virginia  
\*Practice Limited to  
Federal Agencies

March 29, 2004

**WRITER'S DIRECT NUMBER:**  
(202) 772-8520  
**INTERNET ADDRESS:**  
TWOOD@SKGF.COM

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Group Art Unit 2133**

Re: U.S. Utility Patent Application  
Appl. No.: 10/646,717; Filed: August 25, 2003  
For: **Method and System for Programmable Field Statistic for Picture  
Cyclic Redundancy Check (CRC)**  
Inventors: Darren NEUMAN *et al.*  
Our Ref: 1875.4460001

Sir:

Transmitted herewith for appropriate action are the following documents:

1. PTO Fee Transmittal Form (PTO/SB/17);
2. Request to Correct Inventorship in a Non-Provisional Patent Application Under 37 C.F.R. § 1.48(a);
3. Statement Under 37 C.F.R. § 1.48(a)(2) of a Person to be Added or Deleted as an Inventor;
4. Supplemental Declaration for Patent Application;
5. Consent of the Assignee Under 37 C.F.R. § 1.48(a)(5);
6. Statement Under 37 C.F.R. § 3.73(b); with a copy of the Supplemental Assignment attached;
7. One (1) return postcard; and
8. Credit Card Payment Form (PTO-2038) in the amount of \$130.00 to cover the processing fee as set forth under 37 C.F.R. § 1.17(i).

Commissioner for Patents  
March 29, 2004  
Page 2

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

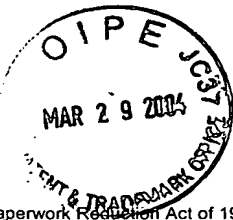
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Theodore A. Wood  
Attorney for Applicants  
Registration No. 52,374

PEG/TAW:ddc  
Enclosures

244252\_1.DOC



PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 130.00

**Complete if Known**

Application Number	10/646,717
Filing Date	August 25, 2003
First Named Inventor	Darren NEUMAN
Examiner Name	To Be Assigned
Art Unit	2133
Attorney Docket No.	1875.4460001

**METHOD OF PAYMENT (check all that apply)**☐ Check ☒ Credit card ☐ Money Order ☒ Other\*\* ☐ None☒ \*Charge any deficiencies or credit any overpayments in Deposit Account: the fees to Deposit Acct. No. 19-0036Deposit Account Number 19-0036Deposit Account Name Sterne Kessler, Goldstein & Fox P.L.L.C.

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments☐ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$) 0.00

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	- 20 **=	X	
Multiple Dependent	- 3 **=	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	
1202 18	2202 9	Claims in excess of 20	
1201 86	2201 43	Independent claims in excess of 3	
1203 290	2203 145	Multiple dependent claim, if not paid	
1204 86	2204 43	** Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)			(\$) 0.00

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	
Other fee (specify) <u>Processing Fee</u>			130.00
*Reduced by Basic Filing Fee Paid			
SUBTOTAL (3)			(\$) 130.00

**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	Theodore A. Wood	Registration No. (Attorney/Agent)	52,374	Telephone	(202) 371-2600
Signature	<i>Theodore A. Wood</i>	Date	March 29, 2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

244286\_1.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Darren NEUMAN *et al.*

Appl. No.: 10/646,717

Filed: August 25, 2003

For: **Method and System for Programmable  
Field Statistic for Picture Cyclic  
Redundancy Check (CRC)**

Confirmation No.: 9853

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1875.4460001

**Request to Correct Inventorship in a Non-Provisional Patent  
Application Under 37 C.F.R. § 1.48(a)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants request that the United States Patent and Trademark Office correct inventorship in the above-captioned non-provisional patent application for which an oath or declaration has already been filed. Specifically Applicants request that the Office change the inventorship in this application from Darren Neuman, Chengfuh Jeffrey Tang, Yao-Hua Steven Tseng, Guang Ting Shih and Wen Huang to **Darren Neuman, Chengfuh Jeffrey Tang, Yao-Hua Steven Tseng, Guang Ting Shih, Wen Huang and Charles Thomas Monahan.**

This request is accompanied by:

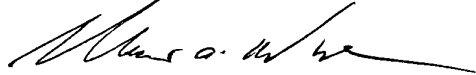
- (1) A statement from each person to be added as an inventor, and/or each person to be deleted as an inventor, stating that the error in inventorship was made without deceptive intent on his or her part;
- (2) An oath or declaration by the actual inventor or inventors as required by 37 C.F.R. § 1.63 or as permitted by 37 C.F.R. §§ 1.42, 1.43 or 1.47;

- (3) The written consent of the assignee of the originally named inventors;
- (4) A Statement Under 37 C.F.R. § 3.73(b) executed by the assignee named in part (3); and
- (5) The processing fee as set forth under 37 C.F.R. § 1.17(i), in the amount of \$130.00.

Applicants hereby authorize the U.S. Patent and Trademark Office to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

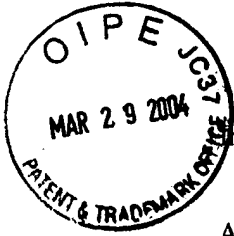
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Theodore A. Wood  
Attorney for Applicants  
Registration No. 52,374

Date: March 29, 2004

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Darren NEUMAN *et al.*

Appl. No.: 10/646,717

Filed: August 25, 2003

For: **Method and System for Programmable  
Field Statistic for Picture Cyclic  
Redundancy Check (CRC)**

Confirmation No.: 9853

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1875.4460001

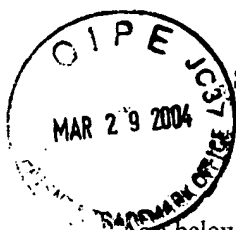
**Statement Under 37 C.F.R. § 1.48(a)(2) of a Person  
to be Added or Deleted as an Inventor**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

I am a co-inventor of the invention of one or more claims in the above-captioned non-provisional application for which an oath or declaration under 37 C.F.R. § 1.63 has been filed erroneously not naming me as an inventor. The inventorship error occurred without deceptive intent on my part. I have read and understand 37 C.F.R. § 10.18(b).

Signed:  Date: 3/12/04  
Charles Thomas Monahan



# SUPPLEMENTAL DECLARATION FOR PATENT APPLICATION

Docket Number: 1875.4460001

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled **Method and System for Programmable Field Statistic for Picture Cyclic Redundancy Check (CRC)**, the specification of which is attached hereto unless the following box is checked:

☒ was filed on August 25, 2003;  
as United States Application Number 10/646,717.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f) or § 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or § 365(a) of any PCT international application, which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Applications(s):

Priority Claimed

☐ Yes ☐ No

\_\_\_\_\_  
(Application No.)      (Country)      (Day/Month/Year Filed)

☐ Yes ☐ No

\_\_\_\_\_  
(Application No.)      (Country)      (Day/Month/Year Filed)

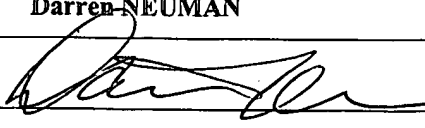
Send Correspondence to:

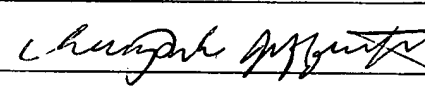
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934


Direct Telephone Calls to:

(202) 371-2600

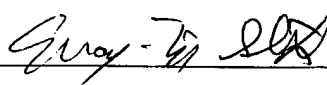
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

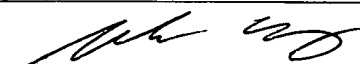
Full name of first Inventor:	Darren NEUMAN
Signature of first Inventor:	 Date: 7/12/04
Residence:	Palo Alto, California
Citizenship:	United States
Mailing Address:	1301 Parkinson Avenue Palo Alto, California 94301


Full name of second Inventor:	Chengfuh Jeffrey TANG
Signature of second Inventor:	 Date: 3/15/04
Residence:	Saratoga, California
Citizenship:	United States
Mailing Address:	19775 Seagull Court Saratoga, California 95070

Full name of third Inventor:	Yao-Hua Steven TSENG
Signature of third Inventor:	 Date: 3/12/04
Residence:	Fremont, California
Citizenship:	United States
Mailing Address:	43322 Banda Terrace Fremont, California 94539

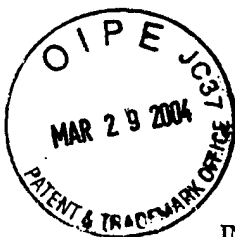


Full name of fourth Inventor:	<b>Guang Ting SHIH</b>
Signature of fourth Inventor:	 Date: 3/12/04
Residence:	<b>San Jose, California</b>
Citizenship:	<b>Taiwan (Republic of China)</b>
Mailing Address:	<b>373 River Oaks Circle, #1207 San Jose, California 95134</b>

Full name of fifth Inventor:	<b>Wen HUANG</b>
Signature of fifth Inventor:	 Date: 3/12/04
Residence:	<b>San Jose, California</b>
Citizenship:	<b>China</b>
Mailing Address:	<b>1977 Majestic Way San Jose, California 95132</b>

Full name of sixth Inventor:	<b>Charles Thomas MONAHAN</b>
Signature of sixth Inventor:	 Date: 3/12/04
Residence:	<b>Mountain View, California</b>
Citizenship:	<b>United States</b>
Mailing Address:	<b>704 Ehrhorn Avenue Mountain View, California 94041</b>

238118\_1.DOC



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Darren NEUMAN *et al.*

Appl. No.: 10/646,717

Filed: August 25, 2003

For: **Method and System for Programmable  
Field Statistic for Picture Cyclic  
Redundancy Check (CRC)**

Confirmation No.: 9853

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1875.4460001

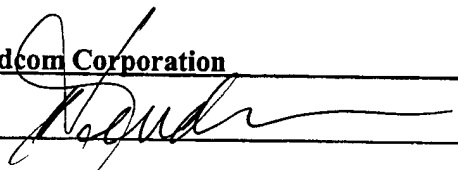
**Consent of the Assignee Under 37 C.F.R. § 1.48(a)(5)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Broadcom Corporation, assignee of the entire right, title and interest of the originally named inventors of the above-captioned application, consents to the change in inventorship from Darren Neuman, Chengfuh Jeffrey Tang, Yao-Hua Steven Tseng, Guang Ting Shih and Wen Huang to Darren Neuman, Chengfuh Jeffrey Tang, Yao-Hua Steven Tseng, Guang Ting Shih, Wen Huang and Charles Thomas Monahan. I have read and understand 37 C.F.R. § 10.18(b).

For: Broadcom Corporation

Signature: 

Type or Print name: Dee Henderson

Manager, Intellectual Property Portfolio

Title: \_\_\_\_\_

Date: March 16, 2004



PTO/SB/86 (08-03)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**

Docket No. 1875.4460001

Applicant/Patent Owner: Darren NEUMAN et al.

Application No./Patent No.: 10/646,717 Filed/Issue Date: August 25, 2003

Entitled: Method and System for Programmable Field Statistic for Picture Cyclic Redundancy Check (CRC)

Broadcom Corporation, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ % in the patent application patent identified above by virtue of either:
- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.  
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee

March 16, 2004  
Date  
949-926-5958  
Telephone number

Dee Henderson  
Typed or printed name  
[Signature]  
Signature  
Manager, IP Portfolio  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2. 238067\_1.DOC

DO NOT FORWARD  
TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION

SUPPLEMENTAL ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: 1) Darren NEUMAN, 2) Chengfuh Jeffrey TANG, 3) Yao-Hua Steven TSENG, 4) Guang Ting SHIH, 5) Wen HUANG and 6) Charles Thomas MONAHAN, the undersigned inventors hereby sell and assign to Broadcom Corporation, a corporation formed under the laws of California (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as Method and System for Programmable Field Statistic for Picture Cyclic Redundancy Check (CRC) for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 1) [Signature], 2) [Signature], 3) [Signature], 4) [Signature], 5) [Signature] and 6) [Signature] (also known as United States Application No. 10/646,717, filed August 25, 2003), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

DO NOT FORWARD  
TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION

DO NOT FORWARD  
TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION

DO NOT FORWARD  
TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION

Appln. No. 10/646,717  
Docket No. 1875.4460001

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) James D. Bennett, Registration No. 37,550, and David J. Rosmann, Registration No. 43,059, of Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92618-3616, and Robert Greene Sterne, Esq., Registration No. 28,912; Edward J. Kessler, Esq., Registration No. 25,688; Jorge A. Goldstein, Esq., Registration No. 29,021; David K.S. Cornwell, Esq., Registration No. 31,944; Robert W. Esmond, Esq., Registration No. 32,893; Tracy-Gene G. Durkin, Esq., Registration No. 32,831; Michele A. Cimbala, Esq., Registration No. 33,851; Michael B. Ray, Esq., Registration No. 33,997; Robert E. Sokohl, Esq., Registration No. 36,013; Eric K. Steffe, Esq., Registration No. 36,688; Michael Q. Lee, Esq., Registration No. 35,239; Steven R. Ludwig, Esq., Registration No. 36,203; John M. Covert, Esq., Registration No. 38,759; Linda E. Alcorn, Esq., Registration No. 39,588; Lawrence B. Bugaisky, Esq., Registration No. 35,086; Donald J. Featherstone, Esq., Registration No. 33,876; Robert C. Millonig, Esq., Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; Patrick E. Garrett, Esq., Registration No. 39,987; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: 3/12/04 Signature of Inventor: [Signature]  
1) Darren NEUMAN

Date: 3/15/04 Signature of Inventor: [Signature]  
2) Chengfuh Jeffrey TANG

Date: 3/12/04 Signature of Inventor: [Signature]  
3) Yao-Hua Steven TSENG

Date: 3/12/04 Signature of Inventor: [Signature]  
4) Guang Ting SHIH

Date: 3/12/04 Signature of Inventor: [Signature]  
5) Wen HUANG

Date: 3/12/04 Signature of Inventor: [Signature]  
6) Charles Thomas MONAHAN

DO NOT FORWARD  
TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION